Nutrition News

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NUTRITION IN PREVENTIVE MEDICINE AND PUBLIC HEALTH

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What is the role of nutrition in preventive medicine? There is no simple answer to this frequent query. One must know the location, environment, limitations of communication, literacy, actual and potential production-processing-distribution of foods, level of medical services, economic setting.

A reasonable statement of the aim of nutrition in preventive medicine is to provide as many persons as possible with nutritional conditions which promote the best health obtainable within the economic, social, and environmental limitations. In addition, efforts should be made to remove environmental limitations which restrict maximum nutritional benefits.

The initial step toward meeting this objective is to determine major health problems whose origins, within reasonable certainty, lie in nutritional factors. Thus, recognition of edemic goiter within more than five percent of a population justifies institution of well-tried iodinization programs. A less clear mandate would exist if nutrition played a debatable role, or if methods of correction were not applicable under the situation or were too costly to be practical.

We have all seen examples of individuals discouraged from any effort to better their dietary because of the impractically costly recommendations made by an over-enthusiastic, inexperienced nutrition worker. Similarly, nations have failed to initiate programs of nutritional betterment because of overly-ambitious plans.

On a population level there are a number of direct methods of applying nutritional knowledge to combat specific diseases. Examples of these are programs of iodinization to eradicate edemic goiter, fortification of milk with vitamin D to prevent rickets in artificially-fed infants, enrichment of refined or deficient cereals with B-vitamins to combat beriberi, ariboflavinosis, or pellagra, and fluoridation of water supplies in order partially to control dental caries.

These direct methods may almost be considered as mass therapy. Alone, however, they do not provide complete preventive medical services in nutrition for a region anymore than provision of effective means of treatment of diphtheria might be considered to substitute for adequate immunization programs.

Proper "nutritional immunization" must be based upon development of sound dietary habits for the whole of the life span, during which a variety of nutritious foods is consumed. Where variety in diet is practiced, obvious nutritional deficiency diseases are usually non-existent. When several food classes are represented in the daily diet, it is difficult to escape being well-nourished. Such is the philosophy behind recommendation of the basic food groups to be consumed each day.

In a highly industrialized society, which makes possible widespread use of refined foods, it is essential to maintain nutritional quality of foods so that they supply those values customarily expected from wholesome foods. This should not be interpreted as indicating that processing or refinement of a foodstuff is undesirable. Quite the opposite may be true. For example, dried milk has less tendency to develop off flavors if it is defatted. Thus, this is sometimes a desirable step in processing milk even though it means loss of some nutrients. Another processing consideration is production and distribution of **safe** food. Recently, increasing number of additives, potentially or actually in use in foodstuffs, reemphasizes this consideration.

In advising on foods, the nutritionist has responsibility for preventing food fads leading to unsound food habits. Fads may be unsound in origin, or founded upon overpopularization of a therapeutic diet or overextension of medical claims, incompletely explored.

Usefulness of the low-sodium diet for treatment of certain types of hypertension has become appreciated by physicians. Among lay groups, however, such diets are often self-prescribed and frequently the subject of popular advice through magazine or newspaper columns. Such practice may lead to serious health impairment.

Dr. Darby

An over-extension of a scientific observation is the use of the low cholesterol diet. Observance of a strict low cholesterol diet deprives the individual of a large number of important and highly nutritious foods. Use of this diet at the present time is based upon the challenging finding that body cholesterol is somehow related to certain types of arterio-vascular disease. Totally unproved, however, is the hypothesis that **dietary** cholesterol in quantities obtained from a good normal diet may contribute to arterio-vascular disease. The nutrition worker's job is to guide nutritional thinking to combat undesirable fads and to preserve sound dietary practices.

It is apparent from this incomplete discussion of nutrition in preventive medicine that a singularly large responsibility for the preservation of the health of both population groups and individual patients lies with those concerned with the provision of nutritional advice and education.

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Glances AT NUTRITION RESEARCH

Improved dietary habits, nutritional status, and general health are the desirable end results of nutrition research and education. The need for broader, more intensive, and more effective nutrition education is indicated in studies reported here.

Education Improves Family Diets— Six families receiving instructions in nutrition for one year in Washington State showed definite improvement in nutrient content of their diets. Four comparable families who received no instruction during the same period showed no improvement. Adult men of these families tended to have the best diets initially and showed little improvement with and without instruction. Adult women and children under twelve showed greatest improvement of diet in response to education. Calcium was the nutrient which tended most often to be low, vitamins C and D following second.

—J. Am. Diet. Assn. 28:113 (Dec.) 1952.

Education Improves Pregnancy Diets— With comparable low incomes, better food habits are practiced by pregnant women of higher educational level, according to a study done in Iowa. Wives of university students who received dietary instructions early in pregnancy consumed more of all essential nutrients than did pregnant wives of farm and town laborers or pregnant unmarried women who did not receive instruction. Calorie intake was ample for most and excessive for many. Low calcium, protein, and riboflavin intakes were associated with inadequate use of milk. Potatoes and breads were consumed in large quantities by rural women. Authors suggest one quart of milk daily would produce the greatest dietary benefit for these women and urged greater use of milk solids in breads.

—J. Am. Diet. Assn. 28:27 (Jan.) 1952.

College Girls Plan Good Diets — The ability of Home Economics students to plan nutritionally adequate low cost meals for family-size groups has been demonstrated at the University of Nebraska. Records were kept from 1941 to 1950 by women residents of a college dormitory who, annually, planned, prepared, and ate meals in 8 groups of 6 girls each. After the first two years, the nutritive value of the meals was good, providing close to or more than 100 percent of the NRC recommended daily allowances for various essential nutrients. Milk and cheese contributed the greatest share of total protein (31 to 39 percent) and of total calcium (78 to 81 percent) in these meals.

—J. Home Economics 45:326 (May) 1953.

Improving Diets of Older Women— Many aging women could gain increased vitality by improved dietary habits. This conclusion was expressed by a group who have extensively studied food habits, metabolic response to diet, and general health of older women. A high degree of vigor was observed in older women who had established good dietary habits. Milk was the one food they most frequently neglected. There is need for careful and complete counseling of older women on choice of food and its preparation to help them secure an adequate low cost diet with minimum expenditure of time and effort.

—J. Am. Diet. Assn. 28:1138 (Dec.) 1952.

Dr. Darby

Dr. Darby is head of the department of biochemistry and director of division of nutrition of the Vanderbilt University School of Medicine. His consultant contributions have been international and national in scope: as a member of the Food and Nutrition Board, National Research Council; member of the Council on Foods and Nutrition, American Medical Association; member of World Health Organization Expert Advisory Panel on Nutrition; consultant on nutrition, U. S. Public Health service; and many other technical consultation capacities.

WHO

The World Health Organization (WHO) is the one directing and coordinating authority in international health work. Established in 1948 as a specialized agency of the United Nations, it now has a membership of 82 countries. WHO's chief function is to help countries strengthen and improve their own health services. Advisory consultation is provided by WHO through public health experts, demonstration teams for disease control, specialists and consultants on nutrition and other related fields of health education.

Dental Survey

Women keep their teeth better than do men. A recent survey of the American Dental Association showed that one out of each ten men had lost all his teeth, whereas, one out of every fifteen women had lost hers.

A NEWSPAPER'S SCOOP ON HEALTH EDUCATION FOR EMPLOYEES

By Margaret M. Wiesner, R.N., B.S.P.H.N., Industrial Nurse, Milwaukee Sentinel Division, Hearst Corporation

Management in industry is becoming increasingly aware of the influence of the total health of the employee and his family on efficient production. As a liaison between management and employee, the industrial nurse holds the golden opportunity of interpreting helpful health facts to all employees. It is through her initiative and positive efforts that the health of the employee becomes an important factor in the total picture of industry. Educative means are proving one of her most effective tools in selling a total health program to management and employee.

Health education lends itself to many realms of representation. The application of a finger dressing presents opportunity for casual conversation. Many employees "break down" and talk about their overweight problem during this type of interview. It is here that the nurse who is able to be a good listener, gains ground in encouraging the person to see the family physician for check-up. A physical examination may uncover the true cause of the difficulty and afford medical guidance along the path of dieting.

The maintenance of health involves mental, physical, and social factors. The industrial nurse is in a natural position to explain desirable food habits and how to sustain an adequate nutritious diet. Food is a happy subject and people love to talk about themselves and food.

Various visual aids, such as bulletin boards, films, pamphlets, will help sell a health education program. Written records or dated graphs of the progress of the individual recorded each time he is "weighed in" encourage him and serve as a comparative guide.

A film is suggested as an excellent means of tactfully conveying the "health" message to individuals, whether it concerns diet, tuberculosis, fatigue, physical examination, or safety. Group therapy creates constructive conversation and thinking among employees. Interest is aroused and luncheon discussions often include health topics. Presentation of the film in various departments saves production time and reaches a major portion of the employees more effectively. Employees like this procedure. They are not using leisure time, and are obtaining information in a pleasant manner. Planning and forethought so that showing the film does not interfere with other activities of the industry is of utmost importance for a favorable reception of the movie premiere. Distribution of appropriate pamphlets at the time of instruction by film is an effective medium of teaching.

Display of colorful posters, on bulletin boards maintained specifically for health and located in strategic places throughout the plant, affords a continuous story of personal well-being. Subjects that are posted should be changed frequently and coincide with timely human interest elements in order to maintain the attention of the employees. Eating is an all-year habit and proper nutrition may be brought to the fore at various periods when people are prone to vary from a well-balanced diet.

An attractive bulletin board in the health service, constructed with various size glass front, display pockets, creates a near-at-hand means of selling HEALTH to employees. Literature may be posted and distributed during a visit of an employee to the health service.

An advantageous moment for teaching health presents itself during the pre-employment interview. Counselling employees and assisting them in the solution of their personal and family problems are essential parts of a health program in industry.

Health education is a "selling job" from beginning to end and the selling opportunities are plentiful. Here at our newspaper publishing industry, health education has become an integral part of our "getting the paper off the press and to the public."

COORDINATING A COMMUNITY NUTRITION PROGRAM

By Ethel S. Marth, Executive Board, Rochester and Monroe County Nutrition Committee, New York

Nutrition education becomes more effective when it is a community program where each group contributes within the scope of its regular activities.

The Rochester and Monroe County Nutrition Committee was organized in 1941 by Constance Hart and Dr. Estelle Hawley. Its organization was an outgrowth of their attendance at the National Nutrition Conference in Washington, D.C. that year. The committee has carried on a continuous program since then.

Since its inception the aims of the committee have been three-fold:

a. To coordinate the work of all agencies promoting nutrition education as part of their health program.
b. To offer help to agencies requesting it. Such help includes speakers, exhibits, displays, and printed material planned to meet the local need.
c. To discover weak spots in the local nutrition program and to try to stimulate activities of member agencies to meet these needs.

The first aim is really the key to the entire program sponsored by the committee. It is a coordinating group acting as a clearing house for all nutrition work being done in the community. Membership is made up of an advisory committee consisting of public health leaders, an executive board with representatives from local agencies that have nutrition programs, and a community contact group.

Since the committee operates without funds, financing programs becomes the responsibility of participating agencies. The executive board meets each month to plan, discuss, and decide community needs for nutrition education. An annual meeting is held when contact members, executive board, and advisory committee members meet and the general public is welcomed to hear a featured speaker.

Emphasis for the program of the committee is determined by current

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—that 11 percent of the total world milk production in 1952 was used in making cheese?

—that the number of children participating in the National School Lunch Program has more than doubled in nine years and is increasing at the rate of eight to 10 percent each year?

—that a gel produced from the casein of milk has been found effective in treating burns?

—that a new blue-colored coconut sauce for use in ice cream making has been developed? For patriotic occasions, red cherry sauce and blue coconut sauce can be injected into vanilla ice cream simultaneously by separate pumps?

—that the annual milk supply of the United States contains about 1,450,000,000 pounds of nutrients (protein, minerals, lactose, and fat)?

—that American living standards require nearly three tons per capita of products from farms and forests annually?

—that one pound of butter uses the fat from over 20 pounds of milk of average butterfat content?

—that calories per person per day in the national food supply have declined in a 40-year period from 3450 to 3250?

THINGS YOU'LL LIKE TO READ

Man's Foods—Lloyd B. Jensen, Ph.D. Champaign, Illinois: The Garrard Press. 1953. $4.50.

Here is a fascinating and factual narrative of the history of food production, nutrition, and sanitation. It tells the story of how man, through the ages, evolved from a food-gatherer to a food-producer. The book appeals to both professional workers and laymen interested in science and history.

Milk Ordinance and Code—1953 Recommendations of the Public Health Service (Revision of Public Health Bulletin No. 220, 1939), Publication No. 229. Washington, D.C. 75 cents.

This revision, formerly called "Standard Milk Ordinance," takes cognizance of the notable progress in dairy technology and the improvement in public health procedures. The **Milk Ordinance and Code** has been approved by the United States Department of Agriculture, Federal Security Agency, and Public Health Service. It has been recommended for voluntary adoption by states, municipalities, counties, or health districts to encourage more uniformity and a higher level of milk control practice.

Family Circle's Reducing Diet Guide—Norman Jolliffe, M. D. New York: Simon and Schuster, Inc. 1952. $1.00.

This readable book guides people to eat intelligently while reducing. It presents a discussion of nutrition, gives diet plans, menus, interesting recipes, and calorie tables. Dieting for teen-age boys and girls is discussed and diet patterns are given.

Food-Borne Infections and Intoxications—Fred W. Tanner, Ph.D., D.Sc., and Louise P. Tanner, Ph.D. Champaign, Illinois: The Garrard Press, Publishers. Second Edition. 1953. $12.00.

This extensive revision presents modern knowledge of food processing, storage and handling, and related public health problems. It includes detailed information on all types of food poisoning and infection.

COORDINATING A COMMUNITY NUTRITION PROGRAM

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need in the city or county. The committee recently cooperated in a **Food Institute For Nursing Home Personnel.** This was done at the request of the local health department. A nutritionist assigned from the state department of health called on all nursing homes in Rochester to evaluate food service and determine need for information. Four training meetings were then given at Red Cross Food and Nutrition Center. Managers as well as those responsible for food service in nursing homes were invited. Meal planning, economical food buying, and cost control were emphasized. The health officer, who supervises nursing homes, has reported a marked improvement in food service.

Another long term program has been concerned with bread. It was thought that breads of higher milk solids and B-vitamin content would be a step toward a better fed population, since bread is an important food item at all income levels. A formula developed by Dr. Clive McCay at Cornell University has been recommended. Dr. Estelle Hawley at the University of Rochester has run animal experiments which demonstrate advantages of the formula. A worker from the Health Association takes the rats to visit schools, thus creating interest of both parents and children. Radio and television programs and newspaper articles have been used by the committee to tell the story. Each agency has contributed toward the success of this program. Nurses, teachers, schools, hospitals, restaurants, and scores of housewives now ask for the bread. Three of the large chain bakeries are now producing the loaf: 250 loaves weekly were sold in 1950; 40,000 loaves weekly are being sold at the present time. This illustrates how effort by a nutrition committee can produce results.

Nutrition education that is a normal part of many agencies' health program is coordinated into a community project. The committee uncovers the needs, sparks the effort, sets all to work toward a common goal.

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